

2.6 GRAPHING LINEAR INEQUALITIES

STEPS

1. Write equation in slope-intercept form

$$y = mx + b$$

2. GRAPH THE EQUATION → DOTTED LINE IF $<$ or $>$
SOLID LINE IF \leq or \geq

3. TEST A POINT

4. SHADE → IF POINT IS YES, SHADE OVER POINT SIDE
→ IF POINT IS NO, SHADE OVER SIDE OPPOSITE THE POINT

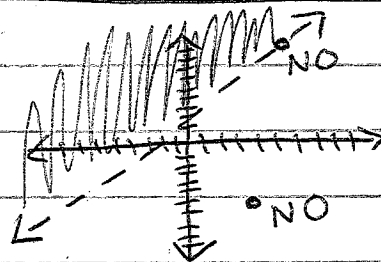
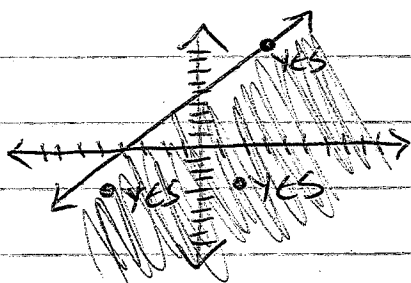
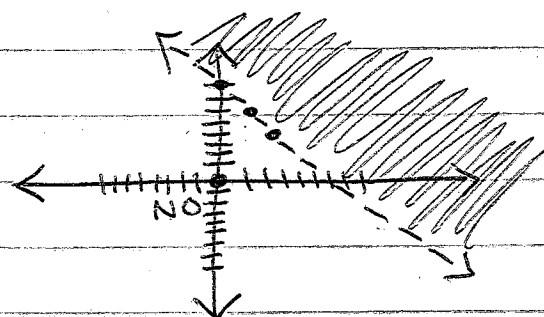
Ex 1 $4x + 2y > 16$

$$\frac{2y}{2} > \frac{-4x + 16}{2} \quad \frac{2}{2}$$

$$y > -2x + 8$$

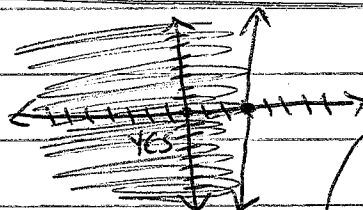
TEST (0,0): $0 > -2(0) + 8$

$$0 > 8 \text{ NO}$$



Ex 2 $x \leq 3$

just x means vertical line at



TEST (0,0): $0 \leq 3 \text{ YES}$

Homework:
2.6 B #7-21
WORKSHEET

Ex 3 $y > -\frac{1}{2}$

just y means horizontal line at

TEST (0,0):

$$0 > -\frac{1}{2} \text{ YES}$$

